

INCLUSION OF ROCKROSE AND QUEBRACHO CONDENSED TANNINS EXTRACTS IN DAIRY GOAT DIETS – INFLUENCE ON THE PRODUCTION, CHEMICAL COMPOSITION AND FATTY ACID PROFILE OF MILK

Guerreiro, O.^{1,2*}, Soldado, D.¹, Fialho, L.¹, Cachucho, L.¹, Garrido, A.², Francisco, A.^{3,4}, Alves, S.P.³, Bessa, R.J.B.³, Pinheiro, C.², Santos-Silva, J.⁴, Jerónimo, E.^{1,2}

¹Centro de Biotecnologia Agrícola e Agro-Alimentar do Alentejo (CEBAL)/Instituto Politécnico de Beja (IPBeja), 7801-908 Beja, Portugal

²ICAAM - Instituto de Ciências Agrárias e Ambientais Mediterrânicas, Universidade de Évora, Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal

³Centro de Investigação Interdisciplinar em Sanidade Animal, Faculdade de Medicina Veterinária, Universidade de Lisboa (CIISA), Avenida da Universidade Técnica, 1300-477 Lisboa, Portugal

⁴Instituto Nacional de Investigação Agrária e Veterinária, Polo de Investigação de Santarém (INIAV-Fonte Boa), 2005-048 Vale de Santarém, Portugal

*olinda.guerreiro@cebal.pt | <http://cistusrumen.pt/>

The effect of Rockrose (*Cistus ladanifer* L.) and Quebracho (*Schinopsis lorentzii*) condensed tannins (CT) extracts on goat milk production, chemical composition and fatty acid profile was evaluated in 18 Serpentina goats. Three experimental treatments were tested: 1) Basal diet (control - C); 2) Basal diet supplemented with Rockrose CT extract (E); and 3) Basal diet supplemented with Quebracho CT extract (Q). Basal diets (800 g/head) and 20 g/head of CT extracts was supplied daily. Milk production and chemical composition was not affected by the diets. Treatments did not alter concentrations of the major fatty acid classes in milk fat (i.e. saturated, mono and polyunsaturated fatty acids) and was not able to enhance milk fat contents of vaccenic and rumenic acids. However, results from milk fatty acid profile suggest that CT extracts, particularly from Rockrose affect the ruminal microbial population and the extension of ruminal biohydrogenation of dietary polyunsaturated fatty acids.

KEYWORDS: Rockrose; quebracho, condensed tannins; fatty acids; goat milk